

# **METHOD AND APPARATUS FOR CREATING AND DISMANTLING A**

## **TRANSIT PATH IN A SUBNETWORK**

### **ABSTRACT OF THE DISCLOSURE**

A system and method are disclosed for determining when to set up or tear down such a temporary transit path so that temporary transit paths are set up when they are needed and torn down when they are no longer needed. A temporary transit path is set up when the bit rate exceeds a first threshold. The temporary transit path is torn down when the bit rate is less than a second threshold. The temporary transit path is set up or torn down between a source station's router and a next hop router. The temporary transit path is set up within a subnetwork that includes the source station, the next hop router, and an intermediate router that is interconnected by a plurality of permanent transit paths to the source station and the next hop router. In one embodiment, a method for creating a temporary path for data packet transmission in the subnetwork is disclosed. Transmission of the data packets is initiated over the permanent transit paths that are coupled between the source station and the next hop router. A bit rate of the data packets from the source station to the next hop router is measured after initiating the transmission. Data packets transmission over the permanent transit paths is continued when the measured bit rate is below a first predetermined value. A temporary transit path between the source station and the next hop router is created when the measured bit rate is above the first predetermined value. The data packets are transmitted over the created temporary transit path when the measured bit rate is above the first predetermined value. In a preferred embodiment, the bit rate is measured again after creating the temporary transit path and transmitting the data packets over the created temporary transit path. The created temporary transit path is torn down when the bit rate is below the second predetermined value. Transmission of the data packets is sent over the permanent transit paths from the source station to the next hop routers once the temporary transit path is torn down.